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EXAMINER

SHAPIRO, LEONID

ART UNIT PAPER NUMBER

2677

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/630,937

Applicant(s)

BATHICHE, STEVEN N.

Examiner

Leonid Shapiro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) 28,31-35 and 39-47 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27,29,30,36-38 and 48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/31/03
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Election of Species

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

Figs. 2-3, 5	constitute Species 1
Fig. 4	constitute Species 2
Fig. 6	constitute Species 3

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claims are generic.

In telephone conversation with Attorney Gary Fedorochko on 09.19.2005 election was made of Species 1 without traverse.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitations of claims 11-12 related to third control signal must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

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number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

The limitations of claims 11-12 related to third control signal is not described in the Specification.

Claim Objections

4. Claim 6 objected to because of the following informalities: Claim 6 is dependent on claim 6. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-15, 19, 21-26, 36, 38 are rejected under 35 U.S.C. 102(e) as being anticipated by Ward et al. (US Patent 6,824,321 B2).

As to claim 1, Ward et al. teaches a method for labeling a key on a hardware input device, wherein a plurality of pattern layers are associated with a key, one of first and second pattern layers being disposed on top of the other of the first and second pattern layers (See Fig. 6, items 602-610, Col. 3, Lines 11-18, Col. 7, Lines 4-48 and Col. 8, Lines 12-31), said method comprising the steps of:

receiving a first control signal from a computer in a first context (in the reference depending on user input required, inherently by mobile phone computer) (See Fig. 8A, item 802, Col. 9, Lines 24-46);

displaying at least a portion of the first pattern layer responsive to the first control signal in the first context (See Fig. 8B, item 812, Col. 9, Lines 46-61);

receiving a second control signal from the computer in a second context (in the reference depending on user input required, inherently by mobile phone computer) (See Fig. 8A, item 804, Col. 9, Lines 24-46); and

displaying at least a portion of the second pattern layer responsive to the second control signal in the second context (See Fig. 8C, item 832, from Col. 9, Line 62 to Col. 10, Line 9).

As to claims 2, 38 Ward et al. teaches the first control signal represents an application is in focus (in the reference depending on user input required, inherently by mobile phone computer) (See Fig. 8A, item 802, Col. 9, Lines 24-46).

As to claims 3-4, Ward et al. teaches the portion of the first pattern layer includes text and icon representing a function associated with the key in active application in the first context (See Fig. 8B, items 812, 818).

As to claims 5-6, Ward et al. teaches the step of displaying at least the portion of the first pattern layer includes illuminating at least the portion of the first pattern layer, and wherein the step of displaying at least the portion of the second pattern layer includes illuminating at least the portion of the second pattern layer, comprising de-illuminating at least the portion of the first pattern layer responsive to the second control signal in the second context (See Fig. 6, items 602-610, Col. 7, Lines 20-32).

As to claims 7-8, Ward et al. teaches the first and second pattern layers are in a region adjacent to the key or part of the key (See Fig. 7, items 708, 712, Col. 8, Lines 43-60).

As to claim 9, Ward et al. teaches the step of discontinuing the display of the portion of the first pattern layer responsive to the second control signal in the second context (See Fig. 6, items 602-610, Col. 7, Lines 38-48).

As to claim 10-13, Ward et al. teaches the first pattern layer includes first and

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second portions, said displaying the portion of the first pattern layer including displaying the first portion of the pattern layer, receiving a third control signal from the computer in a third context; and displaying the second portion of the first pattern layer responsive to the third control signal in the third context (See Fig. 7, items 708, 712, Col. 8, Lines 43-60), discontinuing the display of any portions of the first and second pattern layers displayed (See Fig. 6, items 602-610, Col. 7, Lines 38-48).

As to claim 14, Ward et al. teaches the first and second layers are electroluminescent (See Col. 9, Lines 24-34).

As to claim 15, Ward et al. teaches a computer-readable medium having computer-executable instructions (See Col. 7, Lines 38-48).

As to claim 19, Ward et al. teaches a hardware input device for providing inputs to a computer (See Fig. 6, items 602-610, Col. 3, Lines 11-18, Col. 7, Lines 4-48 and Col. 8, Lines 12-31), a computer comprising:

a plurality of input keys, at least one key associated with plurality of labels, each label representing a context associated with the key, wherein a label displayed is configured to change in response to a control signal representing a current context generated by the computer (See Figs. 8A-8G, items 802-894, Col. 7, Lines 4-48 and Col. 9, Lines 24-46).

As to claim 21, Ward et al. teaches a plurality of stacked layers configured to display the label representing current context of the key responsive to control signal (See Fig. 6, items 602-610, Col. 3, Lines 11-18, Col. 7, Lines 4-48 and Col. 8, Lines 12-31).

As to claims 22-26, Ward et al. teaches a plurality of stacked layers are in a region adjacent to the key, part of the key, at the bottom of the key (See Fig. 6, items 602-610, Col. 3, Lines 11-18, Col. 7, Lines 4-48 and Col. 8, Lines 12-31).

As to claim 36, Ward et al. teaches a computer readable medium having computer-executable instructions (See Fig. 6, items 602-610, Col. 3, Lines 11-18, Col. 7, Lines 4-48 and Col. 8, Lines 12-31) for performing the steps of:

determining a current context of a computer context (in the reference depending on user input required, inherently by mobile phone computer);

generating a control signal representing the current context (See Fig. 8A, item 802, Col. 9, Lines 24-46);

transmitting the control signal to a keyboard, the control signal causing one of a plurality of stacked layers associated with a key of the keyboard to be illuminated, wherein the illuminated layer displays the current context of the key (See Fig. 6, items 602-610, Col. 7, Lines 4-47).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 16-18, 20, 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ward et al. in view of Spain (US Patent No. 6,056,195).

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As to claim 16, Ward et al. teaches a method for labeling a key on a keyboard (See Fig. 6, items 602-610, Col. 3, Lines 11-18, Col. 7, Lines 4-48 and Col. 8, Lines 12-31), comprising the steps of:

receiving a control signal to provide instructions to a user (See Fig. 8A, item 802, Col. 9, Lines 24-46).

Ward et al. does not disclose labeling the key based on the currently configured language.

Spain teaches labeling the key based on the currently configured language (See Fig. 2B, item 56, Col. 4, Lines 27-34).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Spain teaching into Ward et al. system in order to provide different languages capabilities (See Col. 3, Lines 32-35 in the Spain reference).

As to claim 17, Ward et al. teaches a plurality of pattern layers are associated with the key, one of first and second pattern layers being disposed on top of the other of the first and second pattern layers, and wherein said labeling includes displaying at least a portion of one of the first and second pattern layers (See Fig. 6, items 602-610, Col. 7, Lines 3-48).

As to claim 18, Ward et al. teaches a plurality of pattern layers are associate with the key (See Fig. 6, items 602-610, Col. 7, Lines 3-48) and Spain teaches labeling the key based on the currently configured language (See Fig. 2B, item 56, Col. 4, Lines 27-34).

As to claim 20, 37 Ward et al. does not disclose labeling the key based on the currently configured language.

Spain teaches labeling the key based on the currently configured language (See Fig. 2B, item 56, Col. 4, Lines 27-34).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Spain teaching into Ward et al. system in order to provide different languages capabilities (See Col. 3, Lines 32-35 in the Spain reference).

7. Claims 30, 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ward et al. in view of Nguyen et al. (Pub.: US 2004/0253973 A1).

As to claim 30, Ward et al. does not disclose an electronic ink pattern.

Nguyen et al. teaches an electronic ink pattern for keypad labeling (See paragraph 0061).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Nguyen et al. teaching into Ward et al. system in order to provide efficient text entry (See paragraph 0001 in the Nguyen et al. reference).

As to claim 48, Ward et al. teaches a computer readable medium having computer-executable instructions (See Fig. 6, items 602-610, Col. 3, Lines 11-18, Col. 7, Lines 4-48 and Col. 8, Lines 12-31) for performing the steps of:

determining a current context of a computer context (in the reference depending on user input required, inherently by mobile phone computer);

generating a control signal representing the current context (See Fig. 8A, item 802, Col. 9, Lines 24-46);

transmitting the control signal to a keyboard, the control signal causing one of a plurality of stacked layers associated with a key of the keyboard to be illuminated, wherein the illuminated layer displays the current context of the key (See Fig. 6, items 602-610, Col. 7, Lines 4-47).

Ward et al. does not disclose an electronic ink pattern.

Nguyen et al. teaches an electronic ink pattern for keypad labeling (See paragraph 0061).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Nguyen et al. teaching into Ward et al. system in order to provide efficient text entry (See paragraph 0001 in the Nguyen et al. reference).

8. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ward et al. in view of Ford (Pub.: US 2004/0036632 A1).

Ward et al. does not disclose LCD displays configured to display label.

Ford teaches LCD displays configured to display label (See paragraph 0032).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Ford teaching into Ward et al. system in order to use character map (See paragraph 0006 in the Ford reference).

9. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ward et al. in view of Salomon (Pub.: US 2003/0174072 A1).

Ward et al. does not disclose OLED displays configured to display label.

Salomon teaches OLED displays configured to display label (See paragraph 0034).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Salomon teaching into Ward et al. system in order to use keys in communications with microprocessors (See paragraph 0008 in the Salomon reference).

Telephone Inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 571-272-7683. The examiner can normally be reached on 8 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on 571-272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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10.07.05

AMR A. AWAD
PRIMARY EXAMINER
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